

DEPARTMENT OF TRANSPORTATION

DIVISION OF ENGINEERING SERVICES

Office of Structural Materials

Quality Assurance and Source Inspection



Bay Area Branch
690 Walnut Ave. St. 150
Vallejo, CA 94592-1133
(707) 649-5453
(707) 649-5493

Contract #: 04-0120F4Cty: SF/ALA Rte: 80 PM: 13.2/13.9File #: 69.28**WELDING INSPECTION REPORT****Resident Engineer:** Pursell, Gary**Address:** 333 Burma Road**City:** Oakland, CA 94607**Report No:** WIR-002423**Date Inspected:** 21-Apr-2008**Project Name:** SAS Superstructure**OSM Arrival Time:** 630**Prime Contractor:** American Bridge/Fluor Enterprises, a JV**OSM Departure Time:** 1700**Contractor:** Zhenhua Port Machinery Company, Ltd (ZPMC), Changxing Island **Location:** Shanghai, China**CWI Name:** Lv Li Qing, and See Below**CWI Present:** Yes No**Inspected CWI report:** Yes No N/A**Rod Oven in Use:** Yes No N/A**Electrode to specification:** Yes No N/A**Weld Procedures Followed:** Yes No N/A**Qualified Welders:** Yes No N/A**Verified Joint Fit-up:** Yes No N/A**Approved Drawings:** Yes No N/A**Approved WPS:** Yes No N/A**Delayed / Cancelled:** Yes No N/A**Bridge No:** 34-0006**Component:** See Below**Summary of Items Observed:**

The Caltrans Quality Assurance (QA) Inspector, M. Paul Stovall, was present at Zhenghua Port Machinery Company (ZPMC) on Changxing Island, Shanghai, China to monitor the Quality Control (QC) functions during the fabrication of the Self Anchored Suspension (SAS) section of the San Francisco/Oakland Bay Bridge.

OBG Preassembly Bay 2

The QA Inspector observed ZPMC personnel cut plate material for use on the SFOBB Tower.

OBG Preassembly Bay 3

The QA Inspector observed ZPMC welders Wang Zhonghua, ID #053753, Lv Peng, and Zhou Feng, ID #049769 fit and tack weld WT stiffeners onto Side Plates (SP) SP527-001, SP753-001, and SP567-001.

The QA Inspector observed ZPMC welders Li Shouqiang, ID #053609, and Li Zhaoqian, ID #048810 weld Complete Joint Penetration (CJP) welds on W21 X 57's that will later become WT stiffeners.

The QA Inspector observed ZPMC fabrication personnel check the faying surface of WT's with a straight edge prior to fit-up and welding; remove run-off tabs from spliced plates that are for Side Plates and End Plates; heat straighten various welded Side Plates, and fit plates P518A to P518B, this will be used for SP148-001.

The QA Inspector observed ZPMC QC personnel perform final Ultrasonic Tests (UT) on SP751-001-061,

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SP473-001-099, and SP525-001-099. ZPMC QC personnel accepted these Side Plates.

OBG Preassembly Bay 4

The QA Inspector observed ZPMC personnel pre-heat and continuing to weld Diaphragm Plate weld numbers ESD1-SA268-16B and SSD1-SA276-1B (2B). This is a Submerged Arc Weld (SAW) and Welding Procedure Specification (WPS) WPS-B-T-3221-B-U3c-S-1 is used.

The QA Inspector observed ZPMC personnel fit but not weld Diaphragm plate numbers P830 to SA318, 33-meter elevation; this is weld number ESD1-SA318-A/B-3A (4A).

The QA Inspector observed ZPMC personnel grind fillet welds on welded Side Plates and Bottom Plates and for ZPMC welder Dai Lu, ID #048659 to make minor weld repairs.

OBG Preassembly Bay 7

The QA Inspector observed ZPMC welders Wang Changfa, ID #058112, and Yang Gencheng, ID #066418 weld plate stiffeners onto Floor Beams (FB) FB003-046, FB003-037, FB003-035, and FB015-005.

The QA Inspector observed ZPMC personnel welded plate stiffeners on FB026-01, FB022-02; ZPMC QC personnel are checking the flatness of Floor Beams after the welding of CJP's, cut slots into FB025-01, and heat straighten FB022-02. The ZPMC Certified Welding Inspector (CWI) is Hu Wei Qing.

The QA Inspector observed ZPMC QC personnel were present and adequately monitoring the work.

OBG Preassembly Bay 8

The QA Inspector observed ZPMC welder Ma Ying, ID #045270 using the SAW weld process on Diaphragm plate joint number ESD1-SA371-A/B-6A, at the 38-meter elevation approximately 80 percent full. The QA Inspector verified the WPS parameters as 613 amperes (amps) and 30.3 volts.

The QA Inspector observed ZPMC personnel back gouge the root on Diaphragm plate weld number SSD1-SA12-6A-1A (1B), and other personnel were observed to fit and tack weld Diaphragm Plates P308 to SA290, which is given the weld number ESD1-SA290-11A (12A).

The QA Inspector observed ZPMC personnel heat straighten various welded Diaphragm plates.

The QA Inspector observed ZPMC QC personnel were present and adequately monitoring the work.

Summary of Conversations:

The QA Inspector had no significant conversations.

Comments

This report is for the purpose of determining conformance with the contract documents and is not for the purpose of making repair or fit for purpose recommendations. Should you require recommendations concerning repairs or

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remedial efforts please contact Mazen Wahbeh, (818) 292-0659, who represents the Office of Structural Materials for your project.

Inspected By:	Stovall,Paul	Quality Assurance Inspector
Reviewed By:	Carreon,Albert	QA Reviewer
